

MEMOIRS OF LITERATURE.

MONDAY, June 23. 1712.

I.

AN EXTRACT of a Discourse concerning the RESPIRATION OF PLANTS, pronounced at the Opening of the University of Toulouse in the College of the Jesuits, by the Professor of Natural Philosophy, the 20th of October, 1710.

A * Famous Author † began, several Years ago, to suspect that Plants have a Respiration; but it may be said that he went no farther, since he publish'd it only as a mere Conjecture. Some Philosophers, who have occasionally mentioned the same thing after that Author, have not made any Discovery relating to that Subject; and therefore it will not be improper to examine what one ought to think of the Truth of that Problem.

In order to resolve it, two Things are necessary, 1. To prove that Plants have a kind of Respiration, and to shew wherein it consists. 2. To unfold the Mechanical Structure, which occasions that Respiration in Plants.

* This Extract is taken from the Memoirs of Trevoux.

† Malpighi, de Anatome Plantarum, pag. 32.

I make no doubt, says the Author, that what I am to say concerning the Respiration of Plants, will appear very surprising to many Readers. Perhaps it will be look'd upon as one of those Subtilties, which Philosophers love to set forth, not so much to satisfy the Mind, as to surprise it by a new and extraordinary Opinion. But I beseech my Hearers to suspend their Judgment for a while, and to consider that many Things daily occur, which are at first very surprising, and yet prove true, if narrowly look'd into.

When it was given out, some Years ago, that the Sap circulates in Plants, much in the same Manner as the Blood in the Bodies of Animals, the World was amazed at it; but the Thing appeared to be a certain Truth, and by Degrees every Body was convinced of it. Should I affirm, as some Modern Authors do, that Fish breaths in the Water, I know not whether such an Assertion would meet with a good Reception: And yet 'tis certain that Fish breaths the Air contained among the Particles of Water. Nay, the Thing is so undeniable, that Fish dies in Water, from which the Air has been separated. Let us see therefore, whether it be with Plants as 'tis with Fish.

I shall lay down three Things, which appear very Essential to the Subject in Hand.

1. As there are in Animals some Cavities designed to be the common Receptacle of Air, such as the Lungs, and the Breast; the
B b like

like Cavities are also to be found in Plants. 2. As the Air comes out of those Cavities in Animals, and gets into them again at several Times; in like Manner, it comes out of the Cavities of Plants, and gets into them again. 3. As the Air, coming out and getting in alternatively, produces certain Effects for the Benefit of Animals; it produces the same Effects for the Benefit of Plants. If these Three Things prove true, the Problem which I examine, will no longer be incredible; and it will appear from thence not only that Plants breathe in a true Sense, but also in what Sense they may be said to breathe.

I say, in the first Place, that there are in Plants, as well as in Animals, certain Cavities which are the common Receptacle of Air. To be convinced of it, there is no need of having Recourse to difficult Experiments. 'Tis but taking some Straw, and cutting it small in Water; and then Bubbles will immediately appear, the Number whereof will be the greater, as the Straw is cut smaller, insomuch that the Surface of the Water will be sometimes full of them. Those Bubbles are nothing but the Air, that was enclosed in the Straw: There is therefore a great deal of Air in Straw, and consequently some Places designed to contain it.

Every body knows what happens in the Pneumatick Engine when they put into it soft Plants, such as green Pease, Beans newly gathered, Mint, Sparagras, &c. For as the Air is pumped out, those Plants swell in such Manner, that they burst, and the Air comes out with Impetuosity, and in so great Plenty, that sometimes (as Mr. Boyle observes) it raises the Barometer to the height of several Inches.

Besides, how many Fruits do we see, the spongy Substance whereof is hardly any thing else, but a Collection of small Receptacles full of Air? Such are Lemons, Oranges, Cucumbers, Pomgranates, Figs, Gourds, and Melons. How can so much Air get into those Fruits, but through the Cavities placed along the Trunk, and even in the inside of the Root?

I shall say nothing of so many small Plants that burst with a Noise, when pressed with the Fingers; of many others prejudicial to Health for no other Reason, but because they contain too much Air; of so many

Kinds of Pulse, the Shales whereof crack and break in Pieces, when put near the Fire; of those Trees which the Air Splits in a cold Winter; of all those green Boughs, burning on the one side, and on the other blowing like an *Æolopyle*. 'Tis plain that all those Plants have many such Receptacles of Air, as I have mentioned. But, you will ask, Where are those Receptacles? In what Part of a Plant? Did ever any Body observe any such Thing?

In Answer to that Question, I shall observe, after a Famous Anatomist *, that the Organs of Respiration are not the same in all breathing Creatures. In a Man, for instance, those Organs are the Lungs divided into many Lobes, which swell and unswell successively. In Fishes, those Organs are the Gills, consisting of many flat Parts, so hard and so closely placed one upon another, that the Water, which continually gets in between them, happens to be very much pressed; by which means the Air, necessary for the Respiration, is easily squeezed. But the thing is much more wonderful in Insects; for they breathe without Lungs and Gills, and their Organs of Respiration are not all placed together, but in several Parts: They are many Membranous *Trachea's* disposed all along the Body, and not much unlike ours: Only their Conduit is not smooth every where, and grows wider here and there in order to form many small Cells, which serve instead of Lungs, and are like so many Lobes, into which the Air is conveyed through the *Trachea's*, much in the same Manner as it is carried into our Lungs through the several Branches of the *Trachea Arteria*.

What I have said concerning Insects ought to be applied to Plants; for *Malpighi* has discovered in them several Conduits that are perfectly alike: Which, doubtless, is the Reason why he call'd them *Trachea's*. They are distributed in the same Manner, and disposed all along the Plant: They consist of a Kind of thin Membrane, and are sometimes smooth every where, and sometimes grow wider and form small Cells. Those small Cells are the Receptacles we were looking for, and like so many Lobes,

* Mr. Geoffroy.

into which the Air is conveyed through the Conduit of the *Trachea*, as I have said, speaking of Insects. Thus there is a perfect Conformity of Organs on both Sides; which shews the Probability of what I have undertaken to demonstrate concerning the Respiration of Plants: But because I have resolved not to be contented with mere Conjectures, I must proceed further.

I add therefore, in the second Place, that the Air contained in the small Cells, comes out, and gets into them again by Intervals; and I shall offer some Reasons to prove it. 'Tis certain that the Body of a Plant does successively contract it self and dilate; which cannot be, without supposing that the Air comes out of it, and gets into it again. For as the Air gets into our Lungs, upon the Dilatation of the Breast, and comes out of them, when it contracts it self; it ought to be the same with a Plant. This may be so easily understood by the Instance of Bellows, that it were needless to add any thing to it. As for what concerns the Cause of the Contraction and Dilatation of Plants, the Knowledge of it depends in some Measure upon the Mechanical Structure, of which I shall say something hereafter, if I have no time to explain it fully. In the mean while, it is sufficient for us to know, that Plants do really dilate and contract themselves; for this is the only Reason why the Juice ascends, and is distributed into the most imperceptible Conduits of a Plant: It ascends at the time of the Dilatation, and is forced by the Contraction to disperse it self in order to convey the necessary Nourishment into all the Parts. There is but one Difference between the Air and the Juice: The latter never comes out of a Plant, when it gets into it, because the *valvula* hinder it from descending; whereas the Air may come in and get out with the same Freedom, because the *Trachea's* have no *Valvula*, like the Conduits of the Juice, but are always open, as it appears from the Anatomy of Plants *.

Whereupon it will not be improper to take Notice of the Affinity observable between Animals and Plants. For as there are

two Conduits in the inside of our Mouth; one of which receives the Food, and is call'd *Oesophagus*; and the other, named *Trachea*, conveys the Air into the Lungs: In like Manner, two Sorts of Conduits may be seen in the inside of a Root, which is the Mouth of a Plant: Some of those Conduits receive the Juice for the Nourishment of the Plants, and are call'd *ligneous Tubes*; and others, named *Trachea's*, carry the Air into the small Cells.

This Observation will enable us to know the Reason of a Thing, that is very remarkable, tho it be very common, *viz.* Why some Plants want a great deal of Dung, and others require only that the Ground about them should be dug now and then. This may be accounted for by the Difference of those Conduits; since it appears from the Anatomy of Plants *, that some of them have many *Trachea's*, and others many Tubes to convey the Sap. The latter want therefore a great deal of Nourishment, and consequently a great deal of Dung, to supply, if I may say so, so many *Oesophagus's*. As for the others, which are hardly any thing else but a Texture of *Trachea's*, one needs only stir the Ground about them, to keep the Passages of the Air open, part of which are stopp'd by the sinking of the Ground. But to return to those Arguments, from which I have made a Digression.

I have already observed, that Fishes want the Help of Breathing, since they die, when they have no Air to breathe, as when they are put into purged Water. The same is observable in Plants; for if a Water-Plant, with the Clod sticking to its Root, be put into a Vessel full of that Water, it quickly dies; whereas it will easily keep in common Water. Nay, Mr. Boyle observes, that some Plants cease to vegetate, when they are sprinkled with purged Water. I confess they do not die immediately, because the Ground affords them some Air, which is sufficient to keep some Life in them; but they quickly fall into a languishing Condition. So true it is that the Welfare of Plants depends upon the just Quantity of Air which they suck in.

* Malpighius de Plant. Anatome, pag. 31.

† Ibid. pag. 32.

Besides, every body knows that there is an extreme Antipathy between Oil and Plants: That Antipathy is so great, that the mere Smell of Oil is sufficient to kill many Herbs. Hence it is that an Author, who has given us very good Precepts relating to Agriculture, has been so nice as to say that Gardiners should not wear Oily Cloaths; and he affirms, that one may kill a great many Plants by putting some Drops of Oil into their Roots. The Reason of it is, that Air and Oil are Two Bodies, which cannot be joined together, because there is no Relation between the Pores and the Parts of the one, with the Pores and the Parts of the other; and therefore when Oil gets into the *Trachea's*, it keeps out the Air, and stops all the Passages. For the same Reason it is a very subtle Poison for Insects, because getting into their *Trachea's*, it stifles them by taking away their Respiration. So the Modern Philosophers explain that *Phaenomenon*: Nay, they infer from thence that Insects want Breathing as well as other Animals. Which naturally affords the following Argument. We believe that Insects want Breathing, because the same Oil, which gets into their *Trachea's*, and stops their Respiration, kills them at the same time; but we observe the same thing in Plants: Therefore we must conclude that Plants want Breathing, as well as Insects.

This Principle being laid down, it will be an easy thing to explain several *Phaenomena* relating to this Subject: I shall only instance upon some, that are more singular than others. It appears from thence, 1. Why, according to the Observation of an Excellent Botanist, 'tis an usual thing to leave several Vacuities about the Roots of certain Plants, that they may more easily suck in the Air contained in them. And indeed 'tis observable that this Practice concerns those Plants, that want Breathing most, *viz* those that are generally made up of *Trachea's*.

2. Why a close and clay Ground, that will make another Soil fruitful, if it be used like Dung, is nevertheless barren? Its Barrenness does not proceed from Want of a Juice proper for the Nourishment of Plants, since it is so well qualified for Fruitfulness; but the Reason of it is, that being too close, the Air has not a free Passage through it, to reach the *Trachea's* of the Roots.

3. Why in some Countries they throw Ashes upon the Fields to make them more fruitful? For tho Ashes are dry and arid, yet they are very porous, and consequently very proper to keep up the Communication of the Air with the Roots.

4. Why too plentiful a Sap is very prejudicial to Plants? Especially, when the Sap not being able to get out through any Hole, returns to the Root by the Circulation; for then by swelling the Conduits, it presses the *Trachea's* so hard, that it does frequently stifle the Plant. Thus in the Squincy, too great a Plenty of Blood filling the Veins excessively, suffocates the Animal by contracting the Entrance of the *Trachea*.

5. Why, in order to save those Plants, they follow (to this very Day) the Precept of *Vitruvius*, by making a Hole at the Bottom of the Trunk to let out the Juice? For such an Operation clears the *Trachea's*, and restores the Respiration of Plants; much in the same Manner as when we open the Jugular Vein, in a Fit of Squincy, we clear the *Trachea Arteria*, and save the Life of the Animal.

6. Why it is sometimes very beneficial to Plants, kept in Boxes, to be removed from the Town into the Country, and from the Country into the Town? For, supposing that they breathe, the Change of Air must needs occasion some Alteration in them, as well as in us: Which is the more true, because the Effects of Respiration are much the same in Plants as in Animals. This is what remains to be proved.

'Tis now a pretty general Opinion, that Respiration serves for Two principal Ends; one of which is to convey some Particles of Air into the Blood; and the other to make its Circulation more easy by the Motion of the Organs designed for Respiration. But the same may be said of Plants.

The First Use of Respiration is to convey some Drops of Air from the Lobes of the Lungs into the Branches of the Pulmonary Vein and Artery; for this Communication does plainly appear from the Passages that have been found out. And therefore whenever the Air gets into the Lungs, many Particles of it, meeting those Passages, must needs mix with the Blood: Which very much contributes to the Perfection of that Liquor. Such a Mixture gives it that Red Colour, which it has at its coming out of the Lungs, and

and which it had not when it got into them. This is also the true Reason why it runs so smoothly in all the Vessels of the Body; for 'tis well known that the Air is the chief Cause of the Fluidity of Liquid Bodies. Lastly, all the Fermentations of the Blood are partly to be ascribed to that Mixture, by Reason of the Nitre and other Salts, which constantly attend the Air: And therefore, says a Famous Philosopher *, whose Memory will always be very dear to this University, the Use of Respiration does not consist in cooling the Blood, as the Ancients believed; but rather in giving it a gentle Heat, by a Fermentation which the Mixture of the Air raises in that Liquid. That Mixture is therefore the principal Design of Respiration. But the same ought to be said of Plants.

To make my Hearers sensible of it, I must observe that the Juice, which drops sometimes from the Trunk, contains more Air than our common Water; for it is, not only more frothy, but also lighter, since it swims over the Water, when gently poured upon it. The Sap must needs get that Air by circulating; which cannot be without supposing that the Sap receives it from the small Cells, or from the *Trachea's*. It does not appear that the small Cells and the *Trachea's* can afford it but by several Passages designed for that Communication; for tho such Passages have not hitherto been found out, it ought to be supposed that they are in Plants, as they are supposed to be in Animals for the Mixture of several Juices, since 'tis certain that those Liquors are conveyed from one Receptacle into another.

That Air, far from being useless in the Sap, contributes to its Perfection; for mixing with its Parts, it necessarily changes their Situation, whereby it occasions that small Alteration in the Colour, which we observe in the Sap. In the next place, it produces a Fermentation in the small Ventracles designed for that End, much in the same Manner, as it raises a Fermentation in Milk, when it mixes with its Parts. Lastly, it gives the Sap that Liquidity, without

which it could not convey a proper Nourishment into the closest Fibers. Thus in Hydraulick Machines some Particles of Air, being let in, make the Water run through imperceptible Tubes.

The last Use of Respiration is to help the Circulation of many Liquors, especially of the Blood, in the Bodies of Animals; for the Lungs and the Diaphragm being in a perpetual Motion, do continually convey the Chyle from the Ventricle into the Intestines, and from the Intestines into the Lacteal Veins; from whence it quickly gets into the Blood, and continues to circulate. The bare Effort of the Breast in its Dilatation does necessarily press a great many Vessels in the Inside of the Body, which must needs help the running of the Blood. I add, that were it not for the rising of the Lobes, the Blood would not get into the Branches of the Pulmonary Vein and Artery, nor consequently go from one Ventricle of the Heart into the other, without which that Liquor would lose its Motion in an instant. It would be the same with the Sap, if the Contraction of the small Cells did not afford it a free Passage to run. In the next place, their Dilatation serves to drive it on continually, by squeezing the contiguous Tubes, that it may continue its Motion. Besides, as the Blood, in its Circulation gets into many Glands, wherein there happens a Separation of several Liquors necessary to the Animal, and among others, of a very subtil Liquid which occasions all the Motions of the Body, and particularly that of Respiration; in like manner the Sap, as it circulates, goes through several Knots, wherein there happens a Filtration of many Liquors that serve for the Preparation of the Sap, and among others, of a more subtil Liquid, which running towards the small Cells, occasion in them a Kind of Muscular Motion; which, besides some External Cause, makes all the Spring of the Respiration of Plants. This is that Mechanical Structure, the Explication whereof I shall put off till another time, for Fear of running into an excessive Length.

It were to be wish'd the Author would give us that Second Part relating to the Mechanical Structure of Plants, without which his Dissertation cannot be compleat.

* The late Dr. Bayle, Professor in the University of Toulouse.

II.

I. LES OEUVRES du Sr. ROUSSEAU. Tome I. contenant ses Poesies. Tome II. contenant ses Pieces de Theatre.

II. L'ANTI-ROUSSEAU par le Poete sans fard. A Rotterdam, chez Fritsch & Bohm. MDCCXII.

That is, *THE WORKS* of Mr. Rousseau, or his Poems and Plays, in Two Volumes: To which is added a Third Volume entituled, *Anti-Rousseau*. Rotterdam. 1712. in 120. Vol. I. pagg. 560. Vol. II. pagg. 480. Vol. III. pagg. 534. Sold by J. Moetjens, and M. C. Le Cene in the Strand.

MR. Rousseau, being informed that some Booksellers of Rotterdam designed to print his Poetical Works without his Consent, has thought fit to publish at Soleure an Edition of all the Verses composed by him. He declares in his Preface, that he has only left out the Translation of some Psalms, not so elaborate as his other Pieces, and Thirty Two Epigrams, which appear to him too free, tho he believes they are not so bold as many other Works of that Nature, written by several Persons of an undisputed Merit and Probity. The Rotterdam Edition is much larger: There are in it many Pieces, which Mr. Rousseau disowns, as being very obscene, and reflecting upon Religion. We are told in the Advertisement prefixed to this Edition, that it contains CXXV. Pieces, not to be found in that of Soleure, and among others, *The Unbeliever*, *The Franc* * * * and the Famous Couplets, that have made so great a Noise at Paris, and for which Mr. Rousseau has been prosecuted and banished out of France.

I don't design to enlarge upon these Three Volumes; and therefore I shall only give a general Notion of the Matters contained in them.

The First consists of Odes, Cantato's, Epistles, Miscellaneous Poems, Epigrams, Couplets, &c.

In the Second Volume the Readers will find Two Tragedies entituled, *Jason*, *Venus and Adonis*, and Three Comedies, viz. *The Coffee-house*, *The Flatterer*, and *The Capricious Man*.

The Third Volume is a Satyrical Work, consisting of Prose and Verse. The Author has inserted at the End of it all the Pieces relating to the Trial abovementioned. Here follows a Specimen of Mr. Rousseau's Poetry.

A SACRED ODE

Taken from the CXXXth Psalm.

De profundis.

PRESSE de l'ennui qui m'accable,
Jusqu'à ton Thrône redoutable
J'ai porté mes cris gemissans.
Seigneur, enten ma voix plaintive,
Et prête une oreille attentive
Au bruit de mes tristes accens.

Si dans le jour de tes vengeances
Tu consideres mes offenses,
Grand Dieu, quel sera mon appui?
C'est à Toi seul que je m'adresse,
Et c'est en ta seule promesse
Que mon coeur espere aujourd'hui.

Oui! je m'assure en ta clemence:
Si toujours plein de ta puissance
Mon zèle a soutenu ta Loy,
Dieu juste! sois moi favorable,
Et jette un regard secourable
Sur ce coeur qui se fie en Toi.

Dès que paroitra la lumiere,
Jusqu'au temps où de sa carriere
La Nuit recommence le cours,
Plein de l'espoir que tu demandes,
Je t'adresserai mes offrandes,
Et j'implorerai ton secours.

Heureux! puis que de nos souffrances
Par l'objet de nos esperances
Nous devons être rachetés,
Et qu'il nous permet de pretendre
Qu'un jour sa bonté doit s'étendre
Sur toutes nos iniquités.

A SACRED ODE

Taken from the XCVith. Psalm.

Dominus regnavit : exultet terra.

PEUPLES, élevez vos concerts,
 Pouffez des cris de joie & des chants de vi-
 [gloire :
 Voici le Dieu de l'Univers,
 Qui vient faire éclater son triomphe & sa
 [gloire.

La Justice & la Verité
 Servent de fondement à son trône terrible :
 Une profonde obscurité
 Aux regards des mortels le rend inaccessible.

Les éclairs, les feux devorans
 Font luire devant lui leur flamme étincelante,
 Et ses ennemis expirans
 Laissent de leur supplice une trace sanglante.

Pleine d'horreur & de respect
 La Terre a tressailli sur son antique voute :
 Les Monts fondus à son aspect
 Creusent pour s'échapper une brulante route.

De ses jugemens redoutés,
 Les Cieux, les justes Cieux ont été les Mini-
 Et les Méchans épouvantés [stres,
 Ont vu de son courroux les épreuves sinistres.

Soiez à jamais confondus,
 Adorateurs impurs de profanes idoles,
 Vous, qui par des vœux defendus
 Honorez de vos mains les ouvrages frivoles.

Anges sacrés, divins Esprits,
 Adorez à jamais ces marques de sa gloire :
 Peuples élus, Mortels chers,
 Conservez de son nom l'éternelle mémoire

C'est ce Dieu qui du haut des Cieux
 De l'Univers entier réglant les Destinées
 Voit briser ces fragiles Dieux,
 Jouets infortunés des vents & des années.

Vous, qui vivez selon ses Loix,
 Méprisez des Méchans la haine & l'artifice :
 Celui, qui fait trembler les Rois,
 Detournera sur eux les traits de leur malice.

Guidés par ses vives clartés
 Vous marcherez sans trouble au milieu des
 [tenebres.

La gloire & les felicités
 Feront compter vos jours entre les jours ce-
 [lebres.

Que les bienfaits de l'Eternel
 Soient à jamais gravés dans le coeur des Fi-
 [deles,
 Et qu'un hommage solennel
 Fasse éclater par tout les Grandeurs immor-
 telles.

III.

CHRISTOPHORI CELLARII
 Dissertationes Academicæ varii
 argumenti, in summam redactæ
 cura & studio JO. GEORGII
 WALCHII, qui & Dissertationem
 de Auctoris Vita & Scriptis, item
 Indices copiosiores adjecit. Lipsiæ,
 Sumptibus Jo. Lud. Gleditschii.
 Anno MDCCXII.

That is, *ACADEMICAL DISSERTATIONS upon several Subjects by CHRISTOPHER CELLARIUS, collected in one Volume, and reprinted by JOHN GEORGE WALCHIUS, who has prefixed to them an Account of the Author's Life and Writings. Leipzick, 1712. in 8vo. pagg. 860. Sold by Paul Vaillant in the Strand.*

THE late M. Cellarius was born at Smalcalde the 22d of November 1638. and departed this Life the 4th of June 1707. at Hall, where he was Professor of Antiquities and Eloquence. He publish'd, besides the Dissertations contained in this Volume, some Pieces concerning the Roman Literature ; several new Editions of Ancient Authors illustrated with his own Notes ; some Historical and Geographical Books ; others relating

relating to Oriental Learning; &c. An exact Catalogue of all those Writings has been inserted in the Author's Life. The most considerable Work of M. Cellarius is his ancient Geography in Two Volumes in 4to reprinted at Amsterdam some Years ago. He designed to put out the Geography of the middle Ages; but the Publick has been deprived of such a useful Work by the Death of that Learned Man.

It were an easy thing to fill up two or three Sheets with an Account of these Dissertations; but I very much question whether the Readers would approve of it. I shall only insert here the Titles, that the Readers may know the Subject of those Dissertations, and have recourse to them upon Occasion.

1. *De Imperio Palmyreno.*
2. *De Cn. Pompeii M. Expeditione Judaica, sive initio ablati ab Juda Sceptri.*
3. *De Principio Regnorum & Historiarum contra Ctesiam Cnidium de Assyriorum Medorumque, nec non Babyloniorum Regibus.*
4. *De Silio Italico, Poeta Consulari.*
5. *De Origine Linguae Italicae ex Barbarorum incursionibus natae.*
6. *De Gente Samaritana ejusque ceremoniis.*
7. *De Amoenitatibus Historicis & Geographicis ex Itineribus S. Pauli Apostoli collectis.*
8. *De Joanne Baptista*
9. *De Captivitate Babylonica.*
10. *De utilitate Propadeumatum, hoc est, Philologiae & Philosophiae.*
11. *Vindiciae Fl. Josephi, sive Historia Herodum contra Joannem Harduinum.*

12. *De Originibus & Antiquitatibus Medicis.*
13. *De LXX. Interpretibus.*
14. *De Primo Principe Christiano.*
15. *De Studiis Romanorum Literariis in Urbe & Provinciis.*
16. *De Joannis Baptista Carcere & Supplicio.*
17. *De Vigiliis & Lucubrationibus Veterum.*
18. *De Septem Ecclesiis Asiae in divina Apocalypsi memoratis, earumque occasione, de Exilio Joannis Apostoli.*
19. *De Fatis Linguae Latinae.*
20. *De Cimbris & Teutonis primis Romanorum ex Germania Hostibus.*
21. *De G. Julii Caesaris adversus Ariovistum aliosque Germanos gestis bellis.*
22. *De Claudii Drusi Expeditionibus, maxime Germanicis.*
23. *De initiis cultioris Germaniae.*
24. *De Neronis Claudii in Rempublicam & Ecclesiam servitia.*
25. *De Magis ex Oriente Stella duce Bethlehemum profectis.*
26. *De Germanico Caesare Tiberii F. Augusti Nep.*
27. *De Poetis Scholae Publicae utilioribus.*
28. *De soluta orationis Scriptoribus Scholarum usui publico commendandis.*
29. *De S. Pauli Apostoli Romana Civitate.*

Two Dissertations, written by two other Authors, have been inserted at the End of this Volume. The first concerns the Destruction of Sodom, *De Excidio Sodomae.*

The second is entituled, *De Pathmo Lutheri, in Arce Warteburg prope Isenacum, adversus Cardinal. Pallavicinum.*

L O N D O N.

THE following Poem has been newly publish'd.

CALLIPÆDIA, a Poem in Four Books. With some other Pieces, viz. I. An Epistle to (a States-man) Eudoxus, supposed to be writ-

ten about the Year 1646. II. A Panegyricall Elegy on the Death of Gassendus, the Celebrated Astronomer and Philosopher. All written in Latin by Claudius Quillet, and translated into English by N. Rowe, Esq; To which is prefixed Mr. Bayle's Account of the Author's Life and Writings. London: Printed for E. Sanger and E. Curl in Fleetstreet. 1712. in 8vo. Price 4 s.

L O N D O N: Printed by J. Roberts: And Sold by A. Baldwin, near the Oxford-Arms in Warwick-Lane. (Price 2 d.)